UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,588	07/15/2005	Stuart Charles Wray	038665.56184US	4791

23911   7590   08/31/2009
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EXAMINER
THOMPSON, JR, OTIS L

ART UNIT	PAPER NUMBER
2419	

MAIL DATE	DELIVERY MODE
08/31/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/532,588	WRAY ET AL.
Office Action Summary	Examiner	Art Unit	
	OTIS L. THOMPSON, JR	2419	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>24 July 2009</u>.

2a)☐ This action is FINAL.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-3,6-8 and 24-37</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-3,6-8 and 24-37</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☒ All   b)☐ Some * c)☐ None of:

   1.☒ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

Response to Arguments

1.   Applicant's arguments with respect to the 35 USC 103 rejection of claims 1-3, 6-8, 32

and 33 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

2.   The indicated allowability of claims 24-31, 34, and 35 is withdrawn in view of the newly

discovered reference(s) to the prior art presented in the detailed action below. Rejections based

on the newly cited reference(s) follow.

Continued Examination Under 37 CFR 1.114

3.   A request for continued examination under 37 CFR 1.114, including the fee set forth in

37 CFR 1.17(e), was filed in this application after final rejection. Since this application is

eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e)

has been timely paid, the finality of the previous Office action has been withdrawn pursuant to

37 CFR 1.114. Applicant's submission filed on July 24, 2009 has been entered.

DETAILED ACTION

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

5.   1-3, 6-8, 32, 33, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Odom et al. (Cisco VoIP Call Admission Control) in view of Wetzel (US 6,388,990 B1).

6.   **Regarding claim 1**, Odom et al. discloses *a method of call admission control for a*

continuous stream of data in packet switched networks including at least two local area networks

communication to one another across a connecting network, the method comprising the steps of:

    a.   *Transmitting a burst of trial data from a first node in the first local area network*

    through the connecting network to a second node in the second local area network

    (Odom, Page 19, SAA Protocol; The SAA protocol sends a probe [i.e. burst of trial data;

    Page 23, SAA Probe Format, see "…each probe consists of multiple packets…"] from

    the SAA client on the gateway device in the first LAN [Odom, Figure 4] to the server

    gateway in the other network [Odom, Page 19, SAA Protocol].);

    b.   *Reflecting the burst of trial data received at the second node back to the first node*

    (Odom, Page 19, SAA Protocol, see "…returns probe to the sender…");

    c.   *Receiving the reflected burst of trial data at the first node through the connecting*

    network (Odom, Page 19, SAA Protocol, see "…returns the probe to the sender…", i.e.

    receiving the reflected burst is inherent);

    d.   *Comparing the reflected burst of trial data to the transmitted burst of trial data to*

    determine whether transmission of a continuous stream of data can be initiated from the

    first node in the first local area network to the second node in the second local area

    network (Odom, Page 19, SAA Protocol, Calculating Planned Impairment Value; It is

    noted that in order to determine packet loss in a ping style test [Odom, Page 18, SAA

Probes Versus Pings], the reflected burst of trial data must be analyzed and compared to

the data sent to determine if a portion of the burst was lost [i.e. if packet loss occurred]).

Odom et al. discloses the claimed invention above but fails to specifically disclose that

the burst of trial data is transmitted at a higher data rate than the packets to be transmitted on

initiation of the continuous stream of data. However, Wetzel discloses a system in which a

digital subscriber line trains at a data speed which is higher than the subscribed data rate of the

digital subscriber line (See Claim 1). In other words, the digital subscriber line tests the line at

data rate higher than the subscribed data rate (i.e. *trial data is transmitted at a higher data rate*

than the packets to be transmitted on initiation of the continuous stream of data). Wetzel's

method avoids network congestion caused by data rate mismatches between the DSL connection

and a corresponding PVC through the connection-oriented packet network (Abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the

applicant's invention was made to incorporate the teachings of Wetzel into Odom et al. in order

to avoid network congestion in a packet network.

7.   **Regarding claim 2,** Odom et al. in view of Wetzel. inherently discloses *selecting a path*

through the connecting network, the path being determined by the connecting network because in

Odom et al., according to the SAA Protocol on page 19, SAA probes used for CAC go out

randomly on ports in the top end of the audio UDP-defined port range. The path is thus

inherently determined by the connecting network and not predefined.

8.   **Regarding claim 3,** Odom et al. in view of Wetzel discloses that *the burst of trial data is*

the same size as the packets to be transmitted in the continuous stream of data (Odom et al.,

Page 18, SAA Probes Versus Pings, see "...SAA packets can be built and customized to mimic

the type of traffic for which they are measuring the network-in this case a voice packet..."; Page

19, SAA Protocol, see "...SAA probes...go out randomly...; they use a packet size based on the

codec the call will use...").

9.   **Regarding claim 6,** Odom et al. in view of Wetzel discloses *comparing the number of*

packets in the transmitted burst of trial data and the reflected burst of trial data, and calculating

an estimate of packet loss rate (Odom et al., Page 18, The Cisco Service Assurance Agent, see

"...capabilities to measure network delay and packet loss are useful...reasonable to assume that

the packet delay and loss values that the probe returns..."; Page 19, Calculated Planning

Impairment Factor, see "...calculation based on network delay and packet loss figures...").

10.   **Regarding claim 7,** Odom et al. in view of Wetzel discloses *transmitting multiple bursts*

of trial data to improve the estimate (Odom et al., Page 23 under Figure 10, see "...periodic

probe...will be sent to that destination to refresh the information...dynamically adjusts the probe

traffic...").

11.   **Regarding claim 8,** Odom et al. in view of Wetzel discloses *deciding to transmit packet*

data based on an acceptable packet loss rate for the transmission of the continuous stream of

data (Odom et al., Page 18, Measurement Based CAC Mechanisms, see "...SAA

probes...measure the loss and delay...These values...to use in making a decision on the

condition...ability to carry a voice call..."; Page 19, Calculated Planning Impairment Factor, see

"...probe delay and loss information is used in calculating an ICPIF value that is then used as a

threshold for CAC decisions...").

12.   **Regarding claims 32 and 33,** Odom et al. in view of Wetzel discloses *wherein said first*

node comprises a telephone and wherein said second node comprises a telephone (Odom et al.,

Page 1 1ˢᵗ paragraph, see "…(CAC) is a concept that applies to voice traffic only…", i.e. This
implies that the first and second nodes are telephones; Also see figure 8).

13.   **Regarding claim 37,** Odom et al. in view of Wetzel discloses *wherein the packet loss*
rate is not acceptable and the method includes not initiating the transmission of the continuous
stream of data (Odom et al., Page 18, Measurement Based CAC Mechanisms, see "…SAA
probes…measure the loss and delay…These values…to use in making a decision on the
condition…ability to carry a voice call…"; Page 19, Calculated Planning Impairment Factor, see
"…probe delay and loss information is used in calculating an ICPIF value that is then used as a
threshold for CAC decisions...").

14.   Claims 24-27, 29-31, and 34-36 are rejected under 35 U.S.C. 103(a) as being
unpatentable over Odom et al. in view of Patel (US 6,697,378 B1).

15.   **Regarding claim 24,** Odom et al. discloses *a method of call admission control for a*
continuous stream of data in packet switched networks including at least two local area networks
communication to one another across a connecting network, the method comprising the steps of:

        e.   *Transmitting a burst of trial data from a first node in the first local area network*
                through the connecting network to a second node in the second local area network
                (Odom, Page 19, SAA Protocol; The SAA protocol sends a probe [i.e. burst of trial data;
                Page 23, SAA Probe Format, see "…each probe consists of multiple packets…"] from
                the SAA client on the gateway device in the first LAN [Odom, Figure 4] to the server
                gateway in the other network [Odom, Page 19, SAA Protocol].);

      f.   *Reflecting the burst of trial data received at the second node back to the first node*

(Odom, Page 19, SAA Protocol, see "…returns probe to the sender…");

      g.   *Receiving the reflected burst of trial data at the first node through the connecting*

network (Odom, Page 19, SAA Protocol, see "…returns the probe to the sender…", i.e.

receiving the reflected burst is inherent);

      h.   *Comparing the reflected burst of trial data to the transmitted burst of trial data to*

determine whether transmission of a continuous stream of data can be initiated from the

first node in the first local area network to the second node in the second local area

network (Odom, Page 19, SAA Protocol, Calculating Planned Impairment Value; It is

noted that in order to determine packet loss in a ping style test [Odom, Page 18, SAA

Probes Versus Pings], the reflected burst of trial data must be analyzed and compared to

the data sent to determine if a portion of the burst was lost [i.e. if packet loss occurred]).

      Odom et al. does not specifically disclose *wherein the packet loss rate is not acceptable,*

the method further comprising the step of changing the priority of the transmission of continuous

stream of data and repeating steps a) to d) above at the changed priority.

      However, Patel discloses a method of class-based transmission control of data

connections. In the method, an IP data connection could be assigned a "high priority" class, but

based on some real-time statistics such as TCP packet losses, or call failures, the priority class is

changed (Column 7 lines 43-48). It is obvious that, in this disclosure, *the packet loss rate at the*

current high priority is not acceptable. Therefore, in order to decrease that packet loss rate, or

call failures, the priority of the current transmission is dynamically changed (i.e. *changing the*

priority of the transmission of the continuous stream of data). As for the step of *repeating steps*

a) to d) at the changed priority, Odom et al. discloses the use of a periodic probe which refreshes

information (Odom et al., Page 23 under Figure 10).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the

applicant's invention was made to incorporate the teachings of Patel in to Odom et al. in order

decrease the packet loss rate of a continuous stream of data to an acceptable rate for successful

transmission.

16.   **Regarding claim 25,** Odom et al. in view of Patel inherently discloses *wherein step a)*

includes selecting a path through the connecting network, the path being determined by the

connecting network because in Odom et al., according to the SAA Protocol on page 19, SAA

probes used for CAC go out randomly on ports in the top end of the audio UDP-defined port

range. The path is thus inherently determined by the connecting network and not predefined.

17.   **Regarding claim 26,** Odom et al. in view of Patel discloses that *the burst of trial data is*

the same size as the packets to be transmitted in the continuous stream of data (Odom et al.,

Page 18, SAA Probes Versus Pings, see "...SAA packets can be built and customized to mimic

the type of traffic for which they are measuring the network-in this case a voice packet..."; Page

19, SAA Protocol, see "…SAA probes...go out randomly...; they use a packet size based on the

codec the call will use...").

18.   **Regarding claim 27,** Odom et al. in view of Patel discloses *wherein the burst of trial*

data is transmitted at the same data rate as the packets to be transmitted (Odom et al., Page 18,

SAA Probes Versus Pings, see "...SAA packets can be built and customized to mimic the type of

traffic for which they are measuring the network-in this case a voice packet...", i.e. Mimic the

traffic type includes transmitting the burst of trial data at the same data rate as the actual traffic).

19.   **Regarding claim 29,** Odom et al. in view of Patel discloses *wherein step d) includes comparing the number of packets in the transmitted burst of trial data and the reflected burst of trial data, and calculating an estimate of packet loss rate* (Odom et al., Page 18, The Cisco Service Assurance Agent, see "…capabilities to measure network delay and packet loss are useful…reasonable to assume that the packet delay and loss values that the probe returns…"; Page 19, Calculated Planning Impairment Factor, see "...calculation based on network delay and packet loss figures...").

20.   **Regarding claim 30,** Odom et al. in view of Patel discloses *transmitting multiple bursts of trial data to improve the estimate* (Odom et al., Page 23 under Figure 10, see "…periodic probe…will be sent to that destination to refresh the information...dynamically adjusts the probe traffic...").

21.   **Regarding claim 31,** Odom et al. in view of Patel discloses *wherein the packet loss rate is not acceptable and the method includes not initiating the transmission of the continuous stream of data* (Odom et al., Page 18, Measurement Based CAC Mechanisms, see "…SAA probes…measure the loss and delay…These values…to use in making a decision on the condition…ability to carry a voice call…"; Page 19, Calculated Planning Impairment Factor, see "…probe delay and loss information is used in calculating an ICPIF value that is then used as a threshold for CAC decisions...").

22.   **Regarding claim 36,** Odom et al. in view of Patel discloses *deciding to transmit packet data based on an acceptable packet loss rate for the transmission of the continuous stream of data* (Odom et al., Page 18, Measurement Based CAC Mechanisms, see "…SAA probes…measure the loss and delay…These values…to use in making a decision on the

condition...ability to carry a voice call..."; Page 19, Calculated Planning Impairment Factor, see

"...probe delay and loss information is used in calculating an ICPIF value that is then used as a

threshold for CAC decisions...").

23.   **Regarding claims 34 and 35,** Odom et al. in view of Patel discloses *wherein said first*

node comprises a telephone and wherein said second node comprises a telephone (Odom et al.,

Page 1 1st paragraph, see "...(CAC) is a concept that applies to voice traffic only...", i.e. This

implies that the first and second nodes are telephones; Also see figure 8).

24.   Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Odom et al. in

view of Patel as applied to claim 24 above, and further in view of Wetzel.

        Regarding claim 28, Odom et al. in view of Patel discloses the claimed invention above

but fails to specifically disclose *wherein the burst of trial data is transmitted at a higher data*

rate than the packets to be transmitted. However, Wetzel discloses a system in which a digital

subscriber line trains at a data speed which is higher than the subscribed data rate of the digital

subscriber line (See Claim 1). In other words, the digital subscriber line tests the line at data rate

higher than the subscribed data rate (i.e. *trial data is transmitted at a higher data rate than the*

packets to be transmitted). Wetzel's method avoids network congestion caused by data rate

mismatches between the DSL connection and a corresponding PVC through the connection-

oriented packet network (Abstract).

        Therefore, it would have been obvious to one of ordinary skill in the art at the time the

applicant's invention was made to incorporate the teachings of Wetzel into the system of Odom

et al. in view of Wetzel in order to avoid network congestion in a packet network.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OTIS L. THOMPSON, JR whose telephone number is (571)270-1953. The examiner can normally be reached on Monday to Thursday 7:30 am to 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chirag Shah can be reached on (571)272-3144. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Otis L Thompson, Jr./
Examiner, Art Unit 2419

August 28, 2009

/Gregory B Sefcheck/

--Primary Examiner, Art Unit 2419

8-28-2009